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STITES & HARBISON, PLLC
400 W MARKET ST
SUITE 1800
LOUISVILLE, KY 40202-3352

EXAMINER	
CHO, UN C	

ART UNIT	PAPER NUMBER
2687	

DATE MAILED: 01/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/875,529	JANUSZ ET AL.	
	Examiner	Art Unit	
	Un C Cho	2687	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 September 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-37* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-37* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1 – 3, 7 – 13, 15, 34, 35 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sugaya et al. (US 6,490,459) in view of Larsson et al. (US 6,535,498).

Regarding claim 1, Sugaya discloses attaching and operably connecting a wireless transceiver to each apparatus (Sugaya, Col. 1, lines 15 – 23), the wireless transceiver including at least a control unit (Sugaya, Fig. 3, 25) and a wireless processing unit (Sugaya, Fig. 3, 22), positioning a branch station (Sugaya, Fig. 2, 3 and 6) in the vicinity of the plurality of apparatus, the branch station including at least a control unit (Sugaya, Fig. 3, 25) and a wireless processing unit (Sugaya, Fig. 3, 22) and the branch station being in communication with the central control station (Sugaya, Fig. 2, 10), upon occurrence of a predetermined event (Sugaya, Col. 7, lines 10 – 12), the control unit associated with one of the wireless transceiver initiating transmission of a signal through the wireless processing unit and the signal containing the identification of (Sugaya, Col. 3, lines 54 – 63) and the status of the apparatus (Sugaya, Col. 5, lines 33 – 43), the signal being received by the wireless

transceiver associated with one or more neighboring wireless transceiver (Sugaya, Col. 7, lines 10 – 25) and the branch station communicating the signal to the central control station (Sugaya, Col. 8, lines 4 – 11). However, Sugaya does not specifically disclose that each of the receiving transceiver modules making a decision as to whether to re-transmit the messaged based on a determination of whether the transceiver module is on a designated path between the transceiver module from which the message originated and the area control module, re-transmission of the message continuing along the designated path until the message is received at the area control module. In an analogous art, Larsson discloses that each of the neighboring nodes making a decision as to whether to re-transmit the message based on a determination of whether the node is on a designated path between the node from which the message originated and the destination node (Larsson, Col. 2, lines 46 - 55). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the technique of Larsson to the system of Sugaya in order to allow reactive ad-hoc routing protocols to determine whether more optimal routes exist between the source node and the destination node.

Regarding claim 2, Sugaya in view of Larsson as applied to claim 1 above discloses that signaling can be initiated from the central control station, communicated to the branch station for subsequent transmission to one or more intended wireless transceiver, the branch station transmitting the signal to one or more receiving transceiver modules within its transmission range (Sugaya, Col.

6, lines 34 – 48), each of the neighboring nodes making a decision as to whether to re-transmit the message based on a determination of whether the node is on a designated path between the node from which the message originated and the destination node (Larsson, Col. 2, lines 46 - 55).

Regarding claim 3, Sugaya in view of Larsson as applied to claim 2 above discloses the one or more intended wireless transceivers, upon receipt of the control signal, execute the instructions contained therein (Sugaya, Col. 5, lines 14 – 21).

Regarding claim 7, Sugaya in view of Larsson as applied to claim 1 above discloses that the predetermined event is a prompt based on a predetermined schedule (Sugaya, Col. 7, lines 1 – 5).

Regarding claim 9, Sugaya in view of Larsson as applied to claim 2 above discloses that the predetermined event is the receipt of a control signal (Sugaya, Col. 5, lines 14 – 21 and Col. 7, lines 10 – 12).

Regarding claim 10, Sugaya in view of Larsson as applied to claim 1 above discloses that the control unit of each wireless transceiver executes processing stored in an internal memory for coordinating function and control of the wireless transceiver (Sugaya, Col. 5, lines 14 – 32).

Regarding claim 11, Sugaya in view of Larsson as applied to claim 10 above discloses that a unique code is stored in the internal memory for identifying the particular wireless transceiver (Sugaya, Col. 3, lines 57 – 63 and Col. 5, lines 29 – 32).

Regarding claim 12, Sugaya in view of Larsson as applied to claim 10 above discloses that data required for communication control of the wireless transceiver is temporality stored in the internal memory (Sugaya, Col. 5, lines 29 – 32).

Regarding claim 13, Sugaya in view of Larsson as applied to claim 1 above discloses that the radio transceiver associated with each wireless transceiver operate in an unlicensed band (Larsson, Col. 1, lines 40 – 49).

Regarding claim 15, Sugaya in view of Larsson as applied to claim 1 above discloses that the control unit (Sugaya, Fig. 3, 25) of the wireless transceiver has an integral clock function (Sugaya, Col. 8, lines 36 – 39).

Regarding claim 34, the claim is interpreted and rejected for the same reason as set forth in claim 1.

Regarding claim 35, the claim is interpreted and rejected for the same reason as set forth in claim 2.

Regarding claim 37, Sugaya in view of Larsson discloses attaching and operably connecting a wireless transceiver to each apparatus (Sugaya, Col. 1, lines 15 – 23), the wireless transceiver including at least a control unit (Sugaya, Fig. 3, 25) and a wireless processing unit (Sugaya, Fig. 3, 22) operating in the unlicensed 2.4GHz Industrial-Scientific-Medical (ISM) band (Larsson, Col. 1, lines 48 – 49), positioning an branch station (Sugaya, Fig. 2, 3 and 6) in the vicinity of the plurality of apparatus, the branch station including at least a control unit (Sugaya, Fig. 3, 25) and a wireless processing unit (Sugaya, Fig. 3, 22) and

the branch station being in communication with the central control station (Sugaya, Fig. 2, 10), upon occurrence of a predetermined event (Sugaya, Col. 7, lines 10 – 12), the control unit associated with one of the wireless transceiver initiating transmission of a signal through the wireless processing unit and the signal containing the identification of (Sugaya, Col. 3, lines 54 – 63) and the status of the apparatus (Sugaya, Col. 5, lines 33 – 43), the signal being received by the wireless transceiver associated with one or more neighboring wireless transceiver (Sugaya, Col. 7, lines 10 – 25), each of the neighboring nodes making a decision as to whether to re-transmit the message based on a determination of whether the node is on a designated path between the node from which the message originated and the destination node (Larsson, Col. 2, lines 46 - 55) and the branch station communicating the signal to the central control station (Sugaya, Col. 8, lines 4 – 11).

3. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sugaya in view of Larsson as applied to claim 1 above, and further in view of Eichstaedt et al. (US 6,218,958).

Regarding claim 4, Sugaya in view of Larsson as applied to claim 3 above discloses the limitations of claim 3. However, Sugaya in view of Larsson as applied to claim 3 above does not specifically disclose that each transceiver module further includes at least one actuation component for manipulating the operation of the working component based on instructions contained in the

control message. In an analogous art, Eichstaedt discloses a tactile notification device (Eichstaedt, Fig. 1, 12 and Fig. 2) including at least one actuation component (processor, Eichstaedt, Fig. 2, 30) for manipulating the operation of a motor (Eichstaedt, Fig. 2, 30) based on instructions contained in the received signal (Eichstaedt, Col. 3, line 56 through Col. 4, line 1). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the technique of Eichstaedt to the modified system of Sugaya and Larsson in order to provide a system which includes a tactile notification device that can be worn by a person and that defines a tactile surface facing the person so that the tactile notification device generates one or more person-detectable tactile signals when activated.

4. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sugaya in view of Larsson as applied to claim 1 above, further in view of Eichstaedt et al. (US 6,218,958) and further in view of Belvin et al. (US 6,717,529).

Regarding claim 5, Sugaya in view of Larsson as applied to claim 1 above does not specifically disclose that each transceiver module further includes one or more sensors for sensing various operational parameters representative of the status of the working component to which the transceiver module is secured, each such sensor communicating the status information to the micro-controller of the transceiver module for interpretation by a diagnostics processor integral to the micro-controller and then subsequent transmission through the radio

transceiver. In an analogous art, Eichstaedt discloses that a wireless transceiver includes a pressure sensor (Eichstaedt, Fig. 2, 38) for sensing various operational parameters representative of the status of the tactile notification device to which the wireless transceiver is secured, the pressure sensor communicating the status information to the processor of the wireless transceiver for interpretation by the processor (Eichstaedt, Col. 4, lines 19 – 26). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the technique of Eichstaedt to the modified system of Sugaya and Larsson in order to provide a system which includes a tactile notification device that can be worn by a person and that defines a tactile surface facing the person so that the tactile notification device generates one or more person-detectable tactile signals when activated.

However, Sugaya in view of Larsson and further in view of Eichstaedt as applied above does not specifically disclose each sensor communicating the status information to the micro-controller of the transceiver module for interpretation by a diagnostics processor integral to the micro-controller and then subsequent transmission through the radio transceiver. In an analogous art, Belvin discloses transmission of a sensor status through the remote transmit unit (Belvin, Fig. 1, 26A) to the base station receiver (Belvin, Fig. 1, 18). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the technique of Belvin to the modified system of Sugaya, Larsson and Eichstaedt in order to provide a telemetry system including

a remote unit having a remote input unit coupled to a remote transmit unit in which the remote input unit receiving one or more sensor output signals and producing a sensor status signal dependent upon the sensor output signal and transmitting the signal to a base unit.

Regarding claim 6, Sugaya in view of Larsson further in view of Eichstaedt and further in view of Belvin as applied to claim 6 above discloses a tactile notification device (Eichstaedt, Fig. 1, 12 and Fig. 2) including at least one actuation component (processor, Eichstaedt, Fig. 2, 30) for manipulating the operation of a motor (Eichstaedt, Fig. 2, 30) based on instructions contained in the received signal (Eichstaedt, Col. 3, line 56 through Col. 4, line 1).

Regarding claim 8, Sugaya in view of Larsson, further in view of Eichstaedt and further in view of Belvin as applied to claim 5 above discloses that the predetermined event is the receipt of certain status information by the control unit (Sugaya, Col. 5, lines 14 – 21 and Col. 7, lines 10 – 12).

5. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sugaya in view of Larsson as applied to claim 1 above, and further in view of Gatherer et al. (US 2002/0065058).

Regarding claim 14, Sugaya in view of Larsson as applied to claim 1 above does not specifically disclose that the radio transceivers associated with each wireless transceiver operate at power levels no more than 500mW. In an analogous art, Gatherer discloses that Bluetooth transceivers operate at a

maximum power of 100mW (Gatherer, Paragraph 0031, lines 7 – 10). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the technique of Gatherer to the modified system of Sugaya and Larsson in order to increase the improved utilization of the aggregate communication capacity provided by a concentrated plurality of local wireless communication networks and decreasing power requirements for the devices in the ad hoc networks.

6. Claim 36 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sugaya in view of Larsson and further in view of Gatherer et al. (US 2002/0065058).

Regarding claim 36, Sugaya in view of Larsson discloses attaching and operably connecting a wireless transceiver to each apparatus (Sugaya, Col. 1, lines 15 – 23), the wireless transceiver including at least a control unit (Sugaya, Fig. 3, 25) and a wireless processing unit (Sugaya, Fig. 3, 22), positioning a branch station (Sugaya, Fig. 2, 3 and 6) in the vicinity of the plurality of apparatus, the branch station including at least a control unit (Sugaya, Fig. 3, 25) and a wireless processing unit (Sugaya, Fig. 3, 22) and the branch station being in communication with the central control station (Sugaya, Fig. 2, 10), upon occurrence of a predetermined event (Sugaya, Col. 7, lines 10 – 12), the control unit associated with one of the wireless transceiver initiating transmission of a signal through the wireless processing unit and the signal containing the identification of (Sugaya, Col. 3, lines 54 – 63) and the status of the apparatus

(Sugaya, Col. 5, lines 33 – 43), the signal being received by the wireless transceiver associated with one or more neighboring wireless transceiver (Sugaya, Col. 7, lines 10 – 25), each of the neighboring nodes making a decision as to whether to re-transmit the message based on a determination of whether the node is on a designated path between the node from which the message originated and the destination node (Larsson, Col. 2, lines 46 - 55) and the branch station communicating the signal to the central control station (Sugaya, Col. 8, lines 4 – 11). However, Sugaya in view of Larsson as applied above does not specifically disclose that a radio transceiver is operating at a power level no more than 500mW. In an analogous art, Gatherer discloses that Bluetooth transceivers operate at a maximum power of 100mW (Gatherer, Paragraph 0031, lines 7 – 10). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the technique of Gatherer to the modified system of Sugaya and Larsson in order to increase the improved utilization of the aggregate communication capacity provided by a concentrated plurality of local wireless communication networks and decreasing power requirements for the devices in the ad hoc networks.

7. Claims 16 – 18, 22 – 28, 30 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sugaya et al. (US 6,490,459) in view of Larsson et al. (US 6,535,498) and further in view of Novik (US 6,339,745).

Regarding claim 16, Sugaya in view of Larsson discloses attaching and operably connecting a wireless transceiver to each apparatus (Sugaya, Col. 1, lines 15 – 23), the wireless transceiver including at least a control unit (Sugaya, Fig. 3, 25) and a wireless processing unit (Sugaya, Fig. 3, 22), positioning a branch station (Sugaya, Fig. 2, 3 and 6) in the vicinity of the plurality of apparatus, the branch station including at least a control unit (Sugaya, Fig. 3, 25) and a wireless processing unit (Sugaya, Fig. 3, 22) and the branch station being in communication with the central control station (Sugaya, Fig. 2, 10), upon occurrence of a predetermined event (Sugaya, Col. 7, lines 10 – 12), the control unit associated with one of the wireless transceiver initiating transmission of a signal through the wireless processing unit and the signal containing the identification of (Sugaya, Col. 3, lines 54 – 63) and the status of the apparatus (Sugaya, Col. 5, lines 33 – 43), the signal being received by the wireless transceiver associated with one or more neighboring wireless transceiver (Sugaya, Col. 7, lines 10 – 25), each of the neighboring nodes making a decision as to whether to re-transmit the message based on a determination of whether the node is on a designated path between the node from which the message originated and the destination node (Larsson, Col. 2, lines 46 - 55) and the branch station communicating the signal to the central control station (Sugaya, Col. 8, lines 4 – 11). However, Sugaya in view of Larsson as applied above does not specifically disclose a network support server in communication with the area control module and one or more display and control units in communication with

the network support server, the network support server analyzing the message and communicating the status information contained therein to the one or more display and control units for review by an end user. In an analogous art, Novik discloses a computer system (Novik, Fig. 1, 106) in communication with the base station (Novik, Fig. 1, 108) inherently having one or more display and control unit in communication with the computer system, the computer system analyzing the message and communication the status information contained therein to the one or more display and control units for review by a user (Novik, Col. 4, lines 29 – 37). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the technique of Novik to the modified system of Sugaya and Larsson in order to provide a tracking system to allow a user to monitor a wide variety of text data, graphical display and interactive communication functions in regards to the fleet of vehicles being monitored by the tracking system.

Regarding claim 17, Sugaya in view of Larsson and further in view of Novik as applied to claim 16 above discloses that the end user can initiate a control message containing instructions through the display and control units (Novik, Col. 8, lines 50 – 54), signaling can be initiated from the central control station, communicated to the branch station for subsequent transmission to one or more intended wireless transceiver, the branch station transmitting the signal to one or more receiving transceiver modules within its transmission range (Sugaya, Col. 6, lines 34 – 48), each of the neighboring nodes making a decision

as to whether to re-transmit the message based on a determination of whether the node is on a designated path between the node from which the message originated and the destination node (Larsson, Col. 2, lines 46 - 55).

Regarding claim 18, Sugaya in view of Larsson and further in view of Novik as applied to claim 17 above discloses the one or more intended wireless transceivers, upon receipt of the control signal, execute the instructions contained therein (Sugaya, Col. 5, lines 14 – 21).

Regarding claim 22, Sugaya in view of Larsson and further in view of Novik as applied to claim 16 above discloses that the predetermined event is a prompt based on a predetermined schedule (Sugaya, Col. 7, lines 1 – 5).

Regarding claim 24, Sugaya in view of Larsson and further in view of Novik as applied to claim 17 above discloses that the predetermined event is the receipt of a control signal (Sugaya, Col. 5, lines 14 – 21 and Col. 7, lines 10 – 12).

Regarding claim 25, Sugaya in view of Larsson and further in view of Novik as applied to claim 16 above discloses that the control unit of each wireless transceiver executes processing stored in an internal memory for coordinating function and control of the wireless transceiver (Sugaya, Col. 5, lines 14 – 32).

Regarding claim 26, Sugaya in view of Larsson and further in view of Larsson as applied to claim 25 above discloses that a unique code is stored in

the internal memory for identifying the particular wireless transceiver (Sugaya, Col. 3, lines 57 – 63 and Col. 5, lines 29 – 32).

Regarding claim 27, Sugaya in view of Larsson and further in view of Novik as applied to claim 25 above discloses that data required for communication control of the wireless transceiver is temporality stored in the internal memory (Sugaya, Col. 5, lines 29 – 32).

Regarding claim 28, Sugaya in view of Larsson and further in view of Novik as applied to claim 16 above discloses that the radio transceiver associated with each wireless transceiver operate in an unlicensed band (Larsson, Col. 1, lines 40 – 49).

Regarding claim 30, the claim is interpreted and rejected for the same reason as set forth in claim 16.

Regarding claim 31, the claim is interpreted and rejected for the same reason as set forth in claim 17.

8. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sugaya in view of Larsson and Novik as applied to claim 16 above, and further in view of Eichstaedt et al. (US 6,218,958).

Regarding claim 19, Sugaya in view of Larsson and further in view of Novik as applied to claim 16 above discloses the limitations of claim 18. However, Sugaya in view of Larsson and further in view of Novik as applied to claim 16 above does not specifically disclose that each transceiver module

further includes at least one actuation component for manipulating the operation of the working component based on instructions contained in the control message. In an analogous art, Eichstaedt discloses a tactile notification device (Eichstaedt, Fig. 1, 12 and Fig. 2) including at least one actuation component (processor, Eichstaedt, Fig. 2, 30) for manipulating the operation of a motor (Eichstaedt, Fig. 2, 30) based on instructions contained in the received signal (Eichstaedt, Col. 3, line 56 through Col. 4, line 1). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the technique of Eichstaedt to the modified system of Sugaya, Larsson and Novik in order to provide a system which includes a tactile notification device that can be worn by a person and that defines a tactile surface facing the person so that the tactile notification device generates one or more person-detectable tactile signals when activated.

9. Claims 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sugaya as modified by Larsson, Novik as applied to claim 16 above, further in view of Eichstaedt et al. and further in view of Belvin et al. (US 6,717,529).

Regarding claim 20, Sugaya in view of Larsson and further in view of Novik as applied to claim 16 above does not specifically disclose that each transceiver module further includes one or more sensors for sensing various operational parameters representative of the status of the working component to which the transceiver module is secured, each such sensor communicating the

status information to the micro-controller of the transceiver module for interpretation by a diagnostics processor integral to the micro-controller and then subsequent transmission through the radio transceiver. In an analogous art, Eichstaedt discloses that a wireless transceiver includes a pressure sensor (Eichstaedt, Fig. 2, 38) for sensing various operational parameters representative of the status of the tactile notification device to which the wireless transceiver is secured, the pressure sensor communicating the status information to the processor of the wireless transceiver for interpretation by the processor (Eichstaedt, Col. 4, lines 19 – 26). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the technique of Eichstaedt to the modified system of Sugaya, Larsson and Novik in order to provide a system which includes a tactile notification device that can be worn by a person and that defines a tactile surface facing the person so that the tactile notification device generates one or more person-detectable tactile signals when activated. However, Sugaya in view of Larsson, further in view of Novik and further in view of Eichstaedt as applied above does not specifically disclose sensor communicating the status information to the micro-controller of the transceiver module for interpretation by a diagnostics processor integral to the micro-controller and then subsequent transmission through the radio transceiver. In an analogous art, Belvin discloses transmission of a sensor status through the remote transmit unit (Belvin, Fig. 1, 26A) to the base station receiver (Belvin, Fig. 1, 18). Therefore, it would have been obvious to one of ordinary skill in the art at

the time the invention was made to provide the technique of Belvin to the modified system of Sugaya, Larsson, Novik and Eichstaedt in order to provide a telemetry system including a remote unit having a remote input unit coupled to a remote transmit unit in which the remote input unit receiving one or more sensor output signals and producing a sensor status signal dependent upon the sensor output signal and transmitting the signal to a base unit.

Regarding claim 21, Sugaya in view of Larsson, further in view of Novik, further in view of Eichstaedt and further in view of Belvin as applied to claim 20 above discloses a tactile notification device (Eichstaedt, Fig. 1, 12 and Fig. 2) including at least one actuation component (processor, Eichstaedt, Fig. 2, 30) for manipulating the operation of a motor (Eichstaedt, Fig. 2, 30) based on instructions contained in the received signal (Eichstaedt, Col. 3, line 56 through Col. 4, line 1).

Regarding claim 23, Sugaya in view of Larsson, further in view of Novik, further in view of Eichstaedt and further in view of Belvin as applied to claim 20 above discloses that the predetermined event is the receipt of certain status information by the control unit (Sugaya, Col. 5, lines 14 – 21 and Col. 7, lines 10 – 12).

10. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sugaya as modified by Larsson and Novik as applied to claim 16 above, and further in view of Gatherer et al. (US 2002/0065058).

Regarding claim 29, Sugaya in view of Larsson and further in view of Novik as applied to claim 16 above does not specifically disclose that the radio transceivers associated with each wireless transceiver operate at power levels no more than 500mW. In an analogous art, Gatherer discloses that Bluetooth transceivers operate at a maximum power of 100mW (Gatherer, Paragraph 0031, lines 7 – 10). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the technique of Gatherer to the modified system of Sugaya, Larsson and Novik in order to increase the improved utilization of the aggregate communication capacity provided by a concentrated plurality of local wireless communication networks and decreasing power requirements for the devices in the ad hoc networks.

11. Claims 32 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sugaya as modified by Larsson and Novik as applied to claim 30 above, and further in view of Jampolsky et al. (US 2003/0190912).

Regarding claim 32, Sugaya in view of Larsson and further in view of Novik as applied to claim 30 discloses the limitation of claim 31. However, Sugaya in view of Larsson and further in view of Novik as applied to claim 30 above does not specifically disclose the control and display units are in communication with the network support server through an information network. In an analogous art, Jampolsky discloses the control and display units (Jampolsky, Fig. 1, 64) are in communication with the network server

(Jampolsky, Fig. 1, 66) through an information network (Jampolsky, Fig. 1, 62) (Jampolsky, Page 4, Paragraph 0040, lines 10 – 15). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the technique of Jampolsky to the modified system of Sugaya, Larsson and Novik in order to provide a wireless telecommunications network that is operable to collect and report data relating to the status and use of a wireless phone or other telecommunications device in near real-time in response to data collection requests made by the subscribers or other authorized persons.

Regarding claim 33, Sugaya in view of Larsson, further in view of Novik and further in view of Jampolsky as applied to claim 32 above discloses that the information network in the Internet (Jampolsky, Page 4, Paragraph 0040, lines 10 – 15).

Response to Arguments

12. Applicant's arguments filed 9/8/2004 have been fully considered but they are not persuasive.

Regarding claim 1, applicant argued that references by Sugaya in view of Larsson does not disclose re-transmission of the message continues only along the designated path, the message including status information related to a working component and the message being received by the radio transceivers associated with one or more neighboring transceiver modules.

The examiner disagrees with the arguments presented by the applicant and the reasoning is as follows:

Larsson discloses the message being sent on a valid route to the neighbor node (Larsson, Col. 2, lines 55 – 59), Sugaya discloses that the message includes status information related to a hidden terminal station and the message being received by the radio transceivers associated with one or more neighboring branch station (Col. 6, line 66 through Col. 7, line 36).

13. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

14. In response to applicant's argument that the examiner has combined an excessive number of references, reliance on a large number of references in a rejection does not, without more, weigh against the obviousness of the claimed invention. See *In re Gorman*, 933 F.2d 982, 18 USPQ2d 1885 (Fed. Cir. 1991).

Conclusion

15. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Un C Cho whose telephone number is (703) 305-8725. The examiner can normally be reached on M ~ F 8:00AM to 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lester Kincaid can be reached on (703) 306-3016. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SONNY TRINH
PRIMARY EXAMINER

Un C Cho 1/4/05 UC
Examiner
Art Unit 2687